

## **1. Proposed Action**

### **Alternative 2 - Duke Energy Pipeline to MBARI Property**

The Duke Energy pipeline shore-landing site is a currently existing, unused fuel oil pipeline owned by Duke Energy and previously used to unload tankers. MBARI has obtained permission from Duke Energy to use this pipeline to land the MARS cable.

The pipeline extends in a west-northwest direction from the shore to a water depth of roughly 18 meters. The position of the end of the pipeline is 36°48.719' N, -121°48.037' W and is located approximately 153 meters from shore. There is no planned construction through the surf zone for this shore landing. The pipe is 18"-24" carbon steel and has been well maintained by Duke Energy. MBARI will modify the cap at the ocean end of the pipeline to include a seal allowing the MARS cable to enter the pipeline and will design the cap to minimize seawater corrosion.

The cable will run inside the pipeline to a point where the pipeline becomes exposed on the eastern side of the jetty located on Jetty Road at Moss Landing State Beach. From the pipeline exit point, an access hatch will be installed in the pipeline to allow the cable to be pulled ashore from the installation vessel. In order for the cable to reach MBARI property on the south side of the harbor channel, the cable will be installed approximately 30 feet (9 m) below the harbor channel using an HDD construction method. The drilling operations will be staged on MBARI property to minimize impacts to the Moss Landing State Park beach. A Drilling Fluid Monitoring and Remediation Plan and Work Execution Plan have been prepared for this proposed option and are presented in Appendix C.

Once the cable is brought onshore on MBARI's property, power to the cable will be supplied from an existing power source to the ISO van. From the ISO van, the fiber cable will be run along overhead utility lines back to MBARI Building D.

### **Alternative 3 - Moss Landing Marine Laboratories Pier**

The alternative site runs from a water depth of approximately 16 meters at the estimated position for the end of a planned pier to be constructed by Moss Landing Marine Laboratories (MLML) on the seaward side of the MBARI facilities. The estimated position of the end of the pier is 36°48.266' N, -121°49.111' W. MLML has obtained permits to construct this pier and has given MBARI permission to land the MARS cable through conduit running alongside the pier.

From the pier, the cable will run in the conduit and follow the same path as an existing seawater intake pipe before terminating in a circuit breaker box located inside MBARI Building C.

For this alternative, Building C will serve as the Shore Facility, so no additional structures will be needed. As in the other alternatives, the Shore Facility Building C will house all items necessary for cable and node operations including uninterrupted power supply and all command and control equipment. The existing power